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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/214,140	04/08/1999	TAKEO KAWASE	P3299B	5881
20178	7590	05/19/2004		
EPSON RESEARCH AND DEVELOPMENT INC INTELLECTUAL PROPERTY DEPT 150 RIVER OAKS PARKWAY, SUITE 225 SAN JOSE, CA 95134			EXAMINER TRAN, DZUNG D	
			ART UNIT 2633	PAPER NUMBER 23

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/214,140

Applicant(s)

KAWASE ET AL.

Examiner

Dzung D Tran

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on RCE filed 03/31/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 63-71 and 74-79 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 63-71 and 74-79 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 63-64, 69-71, 76 and 77-79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Funke U.S. patent no. 4,987,897 in view of Sakanaka et al. U.S. patent no. 5,680,241.

Regarding claim 63, Funke discloses a system intended for being at least partly implanted into a living body comprising:

a implanted pacemaker for detecting an internal state of a living body and for generating a signal representing the detected state (figure 1, element 10, col. 7, lines 38-54, col. 8, lines 24-62);

a transmitting means for transmitting light (figure 1, element 27, col. 6, lines 28, 34);

a receiving means for receiving and demodulating the light to extract the signal included in the light (figure 1, element 26, col. 6, lines 25, 29); and

a controlling means for receiving the extracted signal (figure 1, elements 11, 12, 13, 15, col. 6, lines 5-14). Funke differs from claim 63 of the present invention in that

Funke does not specific disclose for transmitting light whose polarization state is modulated on the basis of the signal. Sakanaka discloses an optical communication device comprising: at least one transmitter (figure 16, element 33) modulating a plane of polarization (figure 16, element 35) of laser light, and then emitting a modulation result as a transmission signal (figure 16, column 17, lines 12-27) and at least one receiver (figure 16, element 34) selectively receiving light of a specific polarization state (figure 16, column 17, lines 12-27). At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to include the transmitter and receiver of Sakanaka in the system of Funke. One of ordinary skill in the art would have been motivated to do this for separating the wavelengths (col. 17, lines 32-35), therefore it reduce the cross talk between channels.

Regarding claim 64, Funke discloses a system intended for being at least partly implanted into a living body comprising:

a controlling means for generating a control signal (figure 1, elements 16, 32, col. 6, lines 40-41);

a transmitting means for transmitting light (figure 1, element 35, col. 6, lines 43-44, 50);

a receiving means for receiving and demodulating the light to extract the control signal included in the light (figure 1, element 34, col. 6, lines 41-41); and

a implanted pacemaker (same as a physiological function assisting means) for assisting a function of a living body on the basis of the control signal (figure 1, element 10, col. 7, lines 38-54, col. 8, lines 24-62). Funke differs from claim 64 of the present

invention in that Funke does not specific disclose for transmitting light whose polarization state is modulated on the basis of the signal. Sakanaka discloses an optical communication device comprising: at least one transmitter (figure 16, element 33) modulating a plane of polarization (figure 16, element 35) of laser light, and then emitting a modulation result as a transmission signal (figure 16, column 17, lines 12-27) and at least one receiver (figure 16, element 34) selectively receiving light of a specific polarization state (figure 16, column 17, lines 12-27). At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to include the transmitter and receiver of Sakanaka in the system of Funke. One of ordinary skill in the art would have been motivated to do this for separating the wavelengths (col. 17, lines 32-35), therefore it reduce the cross talk between channels.

Regarding claims 71 and 78, Funke discloses a system intended for being at least partly implanted into a living body comprising: in the physiological function assisting device, a implanted pacemaker for detecting an internal state of a living body and for generating a signal representing the detected state (figure 1, element 11, col. 6, lines 5-14), a first transmitting means for transmitting light (figure 1, element 27, col. 6, lines 28, 34), a first receiving means for receiving and demodulating the light to extract the signal included in the light (figure 1, element 26, col. 6, lines 25, 29), and a controlling means for receiving the extracted signal (figure 1, elements 11, 12, 13, col. 6, lines 5-14); in the controlling device, a controlling means for generating a control signal (figure 1, elements 16, 32, col. 6, lines 40-41), a second transmitting means for transmitting light (figure 1, element 35, col. 6, lines 43-44, 50), a second receiving

means for receiving and demodulating the light to extract the control signal included in the light (figure 1, element 34, col. 6, lines 41-41). Funke differs from claim 71 of the present invention in that Funke does not specific disclose for transmitting light whose polarization state is modulated on the basis of the signal. Sakanaka discloses an optical communication device comprising: at least one transmitter (figure 16, element 33) modulating a plane of polarization (figure 16, element 35) of laser light, and then emitting a modulation result as a transmission signal (figure 16, column 17, lines 12-27) and at least one receiver (figure 16, element 34) selectively receiving light of a specific polarization state (figure 16, column 17, lines 12-27). At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to include the transmitter and receiver of Sakanaka in the system of Funke. One of ordinary skill in the art would have been motivated to do this for separating the wavelengths (col. 17, lines 32-35), therefore it reduce the cross talk between channels.

Regarding claim 79, Funke further discloses a first transmitting means for transmitting light whose intensity is modulated (abstract, figure 1, element 27, col. 3, lines 40-62, col. 6, lines 28, 34) and a second transmitting means for transmitting light whose intensity is modulated (abstract, figure 1, element 35, col. 3, lines 40-62, col. 6, lines 43-44, 50).

Regarding claims 69, 70, 76 and 77, Funke further discloses in figure 6, a display unit that displays information regarding a living body on the basis of the extracted signal (figure 6, elements 102, 104, col. 10, lines 15-48). Funke also discloses the detector is mounted in the implanted pacemaker (figure 1).

3. Claims 65-68 and 74-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Funke U.S. patent no. 4,987,897 in view of Sakanaka et al. U.S. patent no. 5,680,241 and further in view of Skagerlund U.S. patent no. 5,099,246.

Regarding claims 65-68 and 74-75, as per claims above, Funke and Sakanaka disclose all the limitation except for transmitting means comprises a planar emission laser. Skagerlund discloses a transmitter comprising the laser emitter is planar polarized directly through the radiation source of the laser emitter (col. 1, lines 33-49). At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to include the planar emission laser of Skagerlund in the system of Funke and Sakanaka. One of ordinary skill in the art would have been motivated to do this for transmitting the polarized light signal in the polarization direction, therefore it reduce the cross talk between channels.

Response to Arguments

4. Applicant's arguments filed on 03/31/2004 have been fully considered but they are not persuasive.

Applicant argues that Sakanaka does not disclose **the whole polarization state is modulated on the basic of a signal** in claims 63, 64, 71 and 78. However, in figure 16, Sakanaka clearly discloses the whole transmitted light from transmitter 33 is

polarization modulated by element 35 and the whole transmitted light from transmitter 36 is polarization modulated by element 38.

Conclusion


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung Tran whose telephone number is (703) 305-0932.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Jason Chan, can be reached on (703) 305-4729.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Dzung Tran
05/12/2004


JASON CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600